

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

| | | |
|---|---|--|
| MANUFACTURER'S NAME Sherwin Incorporated | | EMERGENCY TELEPHONE NO. (213) 261-0251 |
| ADDRESS (Number, Street, City, State, and ZIP Code) 5007 E. Washington Blvd. Los Angeles, Ca. 90040 | | |
| CHEMICAL NAME AND SYNONYMS N/A | TRADE NAME AND SYNONYMS Black Oxide No. 1. / Dublechek No. 1 #No. | |
| CHEMICAL FAMILY Chemical Compound | FORMULA Proprietary | |

SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS | % | TLV (Units) | ALLOYS AND METALLIC COATINGS | % | TLV (Units) |
|---|--------|-------------|--|---|-------------|
| PIGMENTS Iron Oxide | 1-3% | N/A | BASE METAL | | |
| CATALYST | | | ALLOYS | | |
| VEHICLE | | | METALLIC COATINGS | | |
| SOLVENTS Aliphatic Solvent | 97-99% | | FILLER METAL PLUS COATING OR CORE FLUX | | |
| ADDITIVES | | | OTHERS | | |
| OTHERS | | | | | |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES | | | | % | TLV (Units) |
| (Spray can packaging would include fluorocarbon or hydrocarbon propellant. Fluorocarbon propellant - avoid open flames and welding arcs, as thermal decomposition can produce hydrogen chloride and phosgene. Hydrocarbon propellant is extremely flammable.) | | | | | |
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SECTION III - PHYSICAL DATA

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|-------------------------|-----------------|---------------------------------------|--------|
| BOILING POINT (°F.) | 356-510 D. F. | SPECIFIC GRAVITY (H ₂ O=1) | 0.8086 |
| VAPOR PRESSURE (mm Hg.) | 77 D. F. 1.9 mm | PERCENT VOLATILE BY VOLUME (%) | 99% |
| VAPOR DENSITY (AIR=1) | 6.2 | EVAPORATION RATE (_____=1) | 0.1 |
| SOLUBILITY IN WATER | Nil | | |
| APPEARANCE AND ODOR | Water Color | | |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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|--|--------------------------------|------------------|----------|----------|
| FLASH POINT (Method used) | TCC 154 D. F. | FLAMMABLE LIMITS | Lel 1.0% | Uel 7.0% |
| EXTINGUISHING MEDIA | CO ₂ & Dry Chemical | | | |
| SPECIAL FIRE FIGHTING PROCEDURES in case of fire involving this material, do not enter the area without proper equipment, including self contained breathing apparatus. | | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | | | | |

SECTION V - HEALTH HAZARD DATA

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|------------------------------------|---|
| THRESHOLD LIMIT VALUE | 375 ppm (determined on basis of related hydrocarbons) |
| EFFECTS OF OVEREXPOSURE | May cause eye irritation; may cause skin irritation on prolonged or repeated skin contact. May be harmful or fatal if swallowed. |
| EMERGENCY AND FIRST AID PROCEDURES | For eye contact, flush eyes with fresh water for at least 15 minutes; if irritation persists, get medical attention. For extensive skin contact, wash skin with soap and water. Remove grossly contaminated clothing and wash before reuse. If swallowed, do not induce vomiting- call a physician. |

SECTION VI - REACTIVITY DATA

| | | | |
|---|----------------|---|---------------------|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | X | |
| INCOMPATIBILITY (Materials to avoid) May react with strong oxidizing agents. | | | |
| HAZARDOUS DECOMPOSITION PRODUCTS Normal combustion forms carbon dioxide and water vapor. Incomplete combustion can form carbon monoxide. | | | |
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | | |

SECTION VII - SPILL OR LEAK PROCEDURES

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| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED |
| Extinguish all sources of ignition in vicinity of spill or released vapors. Clean up spills as soon as possible, observing precautions in Section IX. |
| WASTE DISPOSAL METHOD |
| Absorb large spills with clay, diatomaceous earth. |

SECTION VIII - SPECIAL PROTECTION INFORMATION

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| RESPIRATORY PROTECTION (Specify type) | | |
| VENTILATION | LOCAL EXHAUST | SPECIAL |
| | MECHANICAL (General) | OTHER |
| PROTECTIVE GLOVES Neoprene or protective gloves for repeated contact. | | EYE PROTECTION If possibility of splashing, wear chemical safety goggles. |
| OTHER PROTECTIVE EQUIPMENT | | |

SECTION IX - SPECIAL PRECAUTIONS

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| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING |
| Avoid contact with eyes and skin. Avoid breathing high concentrations of vapors or mists. Store in cool, well ventilated area away from sources of ignition. |
| OTHER PRECAUTIONS |

Sherwin
INCORPORATED

5007 EAST WASHINGTON BOULEVARD

LOS ANGELES, CALIFORNIA 90040

Nov. 17, 1978

Mr. M. J. Veneroso
Dept. Cl-725 (52-11)
Douglas Aircraft Company
3855 Lakewood Blvd.
Long Beach, CA. 90846

Dear Mr. Veneroso:

In reference to your letter, reference Cl-725-235, the following information is submitted for our products: DUBL-CHEK Black Oxide No. 1, and DUBL-CHEK D-100 Developer. At the present time these products are available in two different propellants, Hydrocarbon (Isobutane) and Fluorocarbons (Freon).

| | | | |
|--------------------------------------|-----------------------------|------------------|-----------------------|
| DOT Shipping Name | Black Oxide No. 1 | Hydrocarbon | Compressed Gas N.O.S. |
| <i>DPM 5174</i> — | Black Oxide No. 1 | Fluorocarbon | Flammable Gas |
| | D-100 Developer | Hydrocarbon | Compressed Gas N.O.S. |
| | D-100 Developer | Fluorocarbon | Non-Flammable Gas |
| <i>DPM 2449-2</i> — | D-100 Developer | Hydrocarbon | Compressed Gas N.O.S. |
| | | Fluorocarbon | Non-Flammable Gas |
| These are classed as ORM-D materials | | Hydrocarbon | Flammable Gas |
| | | Fluorocarbon | Non-Flammable Gas |
| Pressures are: | Black Oxide No. 1 | | D-100 Developer |
| | Hydrocarbon 70 D.F. | 31 lbs. | |
| | 130 D.F. | 60 lbs. | |
| | Fluorocarbon 70 D.F. | 60 lbs. | |
| | 130 D.F. | 110 lbs. | |
| | DUBL-CHEK D-100 Hydrocarbon | 70 D.F. 31 lbs. | |
| | | 130 D.F. 60 lbs. | |
| | Fluorocarbon 70 D.F. | 44 lbs. | |
| | | 130 D.F. 84 lbs. | |

Propellant Names: Hydrocarbon--Isobutane
Fluorocarbon-Dichlorodifluoromethane

Container Capacity: 24 cubic inches Can is a Spratiner DOT-2Q made by Crown Cork & Seal with a bursting pressure of 220 p.s.i.g.

I.A.T.A. Restricted Article # Hydrocarbon--Isobutane 961
Dichlorodifluoromethane 587

Attached are copies of our Materials Safety Data Sheets for your records.

Sincerely,

Sherwin Incorporated
Dale D. Winans
Dale D. Winans
Office Manager